

REL Southwest Ask A REL Response

Teacher Preparation

May 2019

Question:

What evidence exists about the effects and impacts of alternative and emergency certification routes on teacher and student outcomes?

Response:

Thank you for the question you submitted to our REL Reference Desk. We have prepared the following memo with research references to help answer your question. For each reference, we provide an abstract, excerpt, or summary written by the study's author or publisher. Following an established Regional Educational Laboratory (REL) Southwest research protocol, we conducted a search for research reports as well as descriptive study articles on the effects and impacts of alternative and emergency certification routes on teacher and student outcomes.

We have not evaluated the quality of references and the resources provided in this response. We offer them only for your reference. Also, we searched the references in the response from the most commonly used resources of research, but they are not comprehensive, and other relevant references and resources may exist. References provided are listed in alphabetical order, not necessarily in order of relevance. We do not include sources that are not freely available to the requestor.

Research References

Bowen, B. (2013). Measuring teacher effectiveness when comparing alternatively and traditionally licensed high school technology education teachers in North Carolina. *Journal of Technology Education*, 25(1), 82–100. <https://eric.ed.gov/?id=EJ1020207>

From the ERIC abstract: “According to No Child Left Behind (NCLB), the definition of a highly qualified teacher includes three components: obtaining a bachelor's degree; having full licensure as defined by the state; and demonstrating competency, as defined by the state, in each subject taught (U.S. Department of Education, 2004). However, NCLB does not specifically include career and technical education, of which technology education is a part. Due to the difficulty of filling all teaching positions with highly qualified teachers, the North Carolina Department of Public Instruction instituted an alternative licensure program established to allow individuals without an education degree from a university-based teacher preparation program to transfer their skills from

the workplace into the classroom. This has caused some concern about the effectiveness of the alternatively licensed teachers. Some educators feel that an alternatively licensed teacher does not have the necessary understanding of pedagogical theories and practices they would obtain when completing a traditional education program. A quasi-experiment was designed to determine if there was a significant difference in teacher effectiveness when comparing alternatively licensed and traditionally licensed high school technology education teachers. The methodology was designed to use both a quantitative and qualitative approach to utilize triangulation. A series of research questions were presented and by comparing test results, the students' time on task, and qualitative data, a conclusion can be drawn as to whether or not there are any differences in alternatively licensed technology education teachers and traditionally licensed technology education teachers. By using the methodology in this study, the researcher was able to provide evidence that there may not be any statistically significant differences between alternatively licensed and traditionally licensed technology education teachers in North Carolina.”

Boyd, D., Grossman, P., Lankford, H., Loeb, S., & Wyckoff, J. (2006). How changes in entry requirements alter the teacher workforce and affect student achievement. *Education Finance and Policy*, 1(2), 176–216. <https://eric.ed.gov/?id=EJ902823>. Full text retrieved from <https://cepa.stanford.edu/sites/default/files/Reducing%20Entry%20Requirements%20EPF%202006.pdf>

From the ERIC abstract: “We are in the midst of what amounts to a national experiment in how best to attract, prepare, and retain teachers, particularly for high poverty urban schools. Using data on students and teachers in grades three through eight, this study assesses the effects of pathways into teaching in New York City on the teacher workforce and on student achievement. We ask whether teachers who enter through new routes, with reduced coursework prior to teaching, are more or less effective at improving student achievement than other teachers and whether the presence of these alternative pathways affects the composition of the teaching workforce. Results indicate that in some instances the new routes provide teachers with higher student achievement gains than temporary license teachers, though more typically there is no difference. When compared to teachers who completed a university-based teacher education program, teachers with reduced course work prior to entry often provide smaller initial gains in both mathematics and English language arts. Most differences disappear as the cohort matures and many of the differences are not large in magnitude, typically 2 to 5 percent of a standard deviation. The variation in effectiveness within pathways is far greater than the average differences between pathways.”

Boyd, D., Goldhaber, D., Lankford, H., & Wyckoff, J. (2007). The effect of certification and preparation on teacher quality. *Future of Children*, 17(1), 45–68. <https://eric.ed.gov/?id=EJ795877>

From the ERIC abstract: “To improve the quality of the teacher workforce, some states have tightened teacher preparation and certification requirements while others have eased requirements and introduced ‘alternative’ ways of being certified to attract more people

to teaching. Donald Boyd, Daniel Goldhaber, Hamilton Lankford, and James Wyckoff evaluate these seemingly contradictory strategies by examining how preparation and certification requirements affect student achievement. If strong requirements improve student outcomes and deter relatively few potential teachers, the authors say, then they may well be good policy. But if they have little effect on student achievement, if they seriously deter potential teachers, or if schools are able to identify applicants who will produce good student outcomes, then easing requirements becomes a more attractive policy. In reviewing research on these issues, the authors find that evidence is often insufficient to draw conclusions. They do find that highly selective alternative route programs can produce effective teachers who perform about the same as teachers from traditional routes after two years on the job. And they find that teachers who score well on certification exams can improve student outcomes somewhat. Limited evidence suggests that certification requirements can diminish the pool of applicants, but there is no evidence on how they affect student outcomes. And the authors find that schools have a limited ability to identify attributes in prospective teachers that allow them to improve student achievement. The authors conclude that the research evidence is simply too thin to have serious implications for policy. Given the enormous investment in teacher preparation and certification and given the possibility that these requirements may worsen student outcomes, the lack of convincing evidence is disturbing. The authors urge researchers and policymakers to work together to move to a more informed position where good resource decisions can be made.”

Clark, M., McConnell, S., Constantine, J., & Chiang, H. (2013). *Addressing teacher shortages in disadvantaged schools: Lessons from two Institute of Education Sciences studies*. (NCEE 2013-4018). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
<https://eric.ed.gov/?id=ED544183>

From the ERIC abstract: “Schools serving low-income students struggle to attract effective teachers, particularly in science and math. In response to these staffing difficulties, states have tried to lower the barriers to becoming a teacher by establishing “alternative routes to certification.” These routes enable teachers to begin teaching before completing all the requirements for certification and, in many cases, require less education coursework than traditional teacher preparation routes in the same states. Currently, as many as two-fifths of new teachers enter the profession through alternative routes. Most programs providing alternative routes to certification admit most applicants, although a few, including Teach For America and the Teaching Fellows programs, are highly selective, admitting fewer than 15 percent of applicants. To provide evidence on the effectiveness of teachers from alternative routes to certification, the U.S. Department of Education’s Institute of Education Sciences (IES) sponsored two large, multistate random assignment studies. Together, the two studies, which were conducted by Mathematica Policy Research, provide a portrait of teachers from a diverse set of alternative route programs, across a range of grade levels. The first study examined the effectiveness of ‘elementary school teachers from less selective alternative routes.’ The second study examined the effectiveness of ‘secondary math teachers from two highly selective alternative routes,’ Teach For America and the Teaching Fellows programs. Both studies also explored whether any specific teacher characteristics or preparation

program features were associated with effective teaching, to help guide efforts to improve teacher preparation programs and teacher effectiveness. Key lessons learned include: (1) Teachers who enter teaching through alternative routes to certification can help fill teacher shortages in hard-to-staff schools and subjects without reducing student achievement; (2) Coursework taken while teaching may decrease teachers' effectiveness; and (3) It is difficult to predict teacher effectiveness at the time of hiring."

Constantine, J., Player, D., Silva, T., Hallgren, K., Grider, M., & Deke, J. (2009). *An evaluation of teachers trained through different routes to certification* (NCEE 2009-4043). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance.
<https://eric.ed.gov/?id=ED504313>

From the ERIC abstract: "This study addresses two questions related to teacher preparation and certification: (1) What are the relative effects on student achievement of teachers who chose to be trained through different routes to certification and how do observed teacher practices vary by chosen route to certification?; and (2) What aspects of certification programs (such as the amount of coursework, the timing of coursework relative to being the lead teacher in the classroom, the core coursework content) are associated with teacher effectiveness? In 63 study schools, every grade that contained at least one eligible alternatively certified (AC) and one eligible traditionally certified (TC) teacher was included. Students in these study grades were randomly assigned to be in the class of an AC or a TC teacher. Students were tested at the beginning of the school year as a baseline measure and at the end of the year as an outcome. Classroom instruction was observed at one point during the year as an outcome. Reported findings include: (1) Both the AC and the TC programs with teachers in the study were diverse in the total instruction they required for their candidates; (2) While teachers trained in TC programs receive all their instruction (and participate in student teaching) prior to becoming regular full-time teachers, AC teachers do not necessarily begin teaching without having received any formal instruction; (3) There were no statistically significant differences between the AC and TC teachers in this study in their average scores on college entrance exams, the selectivity of the college that awarded their bachelor's degree, or their level of educational attainment; (4) There was no statistically significant difference in performance between students of AC teachers and those of TC teachers; (5) There is no evidence from this study that greater levels of teacher training coursework were associated with the effectiveness of AC teachers in the classroom; and (6) There is no evidence that the content of coursework is correlated with teacher effectiveness."

REL Southwest note: This report meets What Works Clearinghouse (WWC) group design standards without reservations. The full review can be accessed at <https://ies.ed.gov/ncee/wwc/Study/67271>.

Darling-Hammond, L., Holtzman, D. J., Gatlin, S. J., & Heilig, J. V. (2005). Does teacher preparation matter? Evidence about teacher certification, Teach for America, and teacher effectiveness. *Education Policy Analysis Archives*, 13(42), 1–48.
<https://eric.ed.gov/?id=EJ846746>

From the ERIC abstract: “Recent debates about the utility of teacher education have raised questions about whether certified teachers are, in general, more effective than those who have not met the testing and training requirements for certification, and whether some candidates with strong liberal arts backgrounds might be at least as effective as teacher education graduates. This study examines these questions with a large student-level data set from Houston, Texas that links student characteristics and achievement with data about their teachers’ certification status, experience, and degree levels from 1995-2002. The data set also allows an examination of whether Teach for America (TFA) candidates—recruits from selective universities who receive a few weeks of training before they begin teaching—are as effective as similarly experienced certified teachers. In a series of regression analyses looking at 4th and 5th grade student achievement gains on six different reading and mathematics tests over a six-year period, we find that certified teachers consistently produce stronger student achievement gains than do uncertified teachers. These findings hold for TFA recruits as well as others. Controlling for teacher experience, degrees, and student characteristics, uncertified TFA recruits are less effective than certified teachers, and perform about as well as other uncertified teachers. TFA recruits who become certified after 2 or 3 years do about as well as other certified teachers in supporting student achievement gains; however, nearly all of them leave within three years. Teachers’ effectiveness appears strongly related to the preparation they have received for teaching.”

REL Southwest note: This report does not meet What Works Clearinghouse (WWC) group design standards. The full review can be accessed at <http://ies.ed.gov/ncee/wwc/study/82175>.

Evans, B. R. (2013). Supporting female students in mathematics for alternative certification teachers. *Journal of the National Association for Alternative Certification*, 8(2), 43–50. <https://eric.ed.gov/?id=EJ1053453>

From the ERIC abstract: “This article is a follow-up to the last editor’s perspective article about supporting new alternative certification teachers as they teach students from underrepresented groups in mathematics (Evans, 2013). The focus for this article narrows the scope to emphasize support needed for female mathematics students. Alternative certification teachers in the New York City Teaching Fellows (NYCTF) program, among others, were surveyed to determine their attitude toward teaching female students in mathematics. It was found that while NYCTF teachers did not score differently from traditionally prepared teachers on the survey instrument, NYCTF scored higher than another cohort of teachers. NYCTF teachers indicated highest agreement with the idea that female students are just as capable of engaging in higher level mathematics as are male students and mathematics is a subject in which both female and male students can succeed.”

Evans, B. R. (2013). Supporting students from underrepresented groups in mathematics for alternative certification teachers. *Journal of the National Association for Alternative Certification*, 8(1), 16–26. <https://eric.ed.gov/?id=EJ1053404>

From the ERIC abstract: “It is important for new teachers in alternative certification programs to ensure all of their students receive quality education, particularly in mathematics education. Mathematics is a gatekeeper subject in which strong quantitative skills lead to increased opportunities. This article addressed support new alternative certification teachers need as well as the support they could provide to students in diverse mathematics classrooms. Alternative certification teachers in the New York City Teaching Fellows (NYCTF) program were surveyed, among others, to determine their attitude toward student learning in diverse classroom environments in mathematics education. It was found that while NYCTF teachers did not score differently from traditionally prepared teachers on the survey instrument, NYCTF scored higher than another cohort of teachers. NYCTF teachers indicated highest agreement with the idea that students from underrepresented groups are just as capable of engaging in higher level mathematics as White and Asian male students and teachers should take student interests into consideration when teaching mathematics.”

Haj-Broussard, M., Hall, T., Allen, S., Stephens, C., Person, V., & Johnson, T. (2016). Alternative certification teacher and candidate retention: Measures of educator preparation, certification, and school staffing effectiveness. *Journal of the National Association for Alternative Certification*, 11(2), 4–13. <https://eric.ed.gov/?id=EJ1122591>

From the ERIC abstract: “The teacher turnover issue impacts education on national, state, and local levels. On a national level, at the beginning of the 21st century 50% of teachers left the profession within the first five years, creating the need for districts to fill vacancies (Gonzalez, Brown, & Slate, 2008; Greiner & Smith, 2006; Heller, 2004; Ingersoll, 2002, 2003; Kaff, 2004; National Commission on Teaching and America's Future, 2003). The purpose of this study was to examine the percentage of alternative certification candidates who become fully certified and are hired into teaching positions beyond the induction period, the retention rates of alternatively certified teachers who stay in and complete a preparation program, the reasons alternatively certified teachers leave the profession, and the one and three year retention rates of alternative certification teachers once fully certified and hired into school systems. The authors found that three year retention rates ranged from 74% to 92% for the programs in this study.”

Harvey, F., & Gimbert, B. G. (2007). Evaluation of non-traditionally and traditionally prepared teachers' pedagogical content knowledge and practice using performance-based evidence. *Journal of the National Association for Alternative Certification*, 2(1), 42–65. <https://eric.ed.gov/?id=EJ1053312>

From the ERIC abstract: “This study was designed to compare teachers certified in South Carolina that were trained in two different methods: through traditional college preparation programs and through the Program of Alternative Certification for Educators (PACE). This study explored three research questions. The first question addressed differences in pedagogical knowledge based on the Principles of Learning and Teaching (PLT) examination. There was a significant difference between the mean scores of the traditionally trained teachers and the alternatively trained teachers. The second question addressed differences in the evaluation of teaching performance based on the Assisting, Developing, and Evaluation of Professional Teaching (ADEPT) school district level

evaluator's perception of teachers' performance on the individual performance dimension and the sum of rating on the performance dimensions. There was not a significant difference between any of the mean scores for the individual performance dimensions, nor the sum of the mean scores for the individual performance dimensions. And, the third question addressed differences in performance by teachers certified by the two methods based on demographic variables. There were no significant differences in mean scores based on age, gender, or race at the 0.05 level. The analysis of the demographic variable highest degree earned revealed there was a significant difference in the performance between teachers who had a master's degree and teachers who had a master's with additional graduate hours or a doctorate. And, this difference was true for both alternatively and traditionally certified teachers."

Henry, G. T., Purtell, K. M., Bastian, K. C., Fortner, C. K., Thompson, C. L., Campbell, S. L., et. al. (2014). The effects of teacher entry portals on student achievement. *Journal of Teacher Education*, 65(1), 7–23. <https://eric.ed.gov/?id=EJ1019823>. Full text retrieved from <https://www.researchgate.net/publication/274021347>

From the ERIC abstract: "The current teacher workforce is younger, less experienced, more likely to turnover, and more diverse in preparation experiences than the workforce of two decades ago. Research shows that inexperienced teachers are less effective, but we know little about the effectiveness of teachers with different types of preparation. In this study, we classify North Carolina public school teachers into 'portals'—fixed and mutually exclusive categories that capture teachers' formal preparation and qualifications upon first entering the profession—and estimate the adjusted average test score gains of students taught by teachers from each portal. Compared with undergraduate-prepared teachers from in-state public universities, (a) out-of-state undergraduate-prepared teachers are less effective in elementary grades and high school, (b) alternative entry teachers are less effective in high school, and (c) Teach For America corps members are more effective in STEM subjects and secondary grades."

REL Southwest note: This report meets What Works Clearinghouse (WWC) group design standards with reservations. The full review can be accessed at <https://ies.ed.gov/ncee/wwc/Study/1116>.

Karge, B. D., & McCabe, M. (2014). Quality alternative certification programs in special education ensure high retention. *Journal of the National Association for Alternative Certification*, 9(2), 24–43. <https://eric.ed.gov/?id=EJ1053431>

From the ERIC abstract: "Market driven alternative routes to teaching have evolved into a quality program option and not just an answer to the teacher shortage. Alternative certification is a viable means of recruiting, training, and certifying those who have a bachelor's degree and a strong desire to enter the field of teaching. California has been a leader in the development of quality teachers. This cross-sectional study surveyed 124 California State University Alternative Route (Intern) program participants. Ten critical features located in three seminal studies framed the research conducted and provided quality features to enhance retention of teachers. It was determined that the integration of these critical attributes into the university alternative certification programs enhanced the

retention rates of program graduates and served as a means to improve quality. The participants in this study have been teaching 10 years or longer, and the 96 percent retention rate is one of the highest in the country.”

Linek, W. M., Sampson, M. B., Haas, L., Sadler, D., Moore, L., & Nylan, M. C. (2012). The impact of teacher preparation: A study of alternative certification and traditionally prepared teachers in their first year of teaching. *Issues in Teacher Education*, 21(2), 67–82. <https://eric.ed.gov/?id=EJ1001261>. Full text retrieved from <http://www.itejournal.org/issues/fall-2012/10lineketal.pdf>

From the ERIC abstract: “Teacher induction is defined as the transition from student to professional and involves the greatest need for supervision and support. Induction programs providing mentorship, curricular information, classroom support, and professional scaffolding have grown out of concerns related to accountability and attrition during the first years of teaching (Ovando & Trube, 2000). However, there is minimal research investigating the induction year for groups of teachers by preparation programs. This study examines the first year teaching experiences of two groups of public school teachers enrolled in an induction program: One group pursued alternative certification, and the other group had completed a traditional field-based teacher education program at the undergraduate level. The results indicated there are distinct differences in what teachers need and value based on whether they have completed a traditional undergraduate field-based program or an alternative certification program. An initial needs assessment indicated differences upon entry into the program and at the end of the induction year. For example, at the beginning of the year, alternative certification teachers did not know about curriculum, lesson planning, classroom management, or how to work with students; while traditionally certified teachers were concerned about differentiating instruction and meeting individual student needs. At the end of the year, alternative certification teachers had learned about the lesson cycle, classroom management, teacher certification exam, and many voiced dissatisfaction with the program and reflective process. However, traditionally certified teachers appreciated camaraderie with peers and the process of becoming a reflective practitioner. These views indicate differences in perceptions of professional responsibility.”

Ruiz de Castilla, V. (2018). *Teacher certification and academic growth among English learner students in the Houston Independent School District* (REL 2018-284). Washington, DC: U.S. Department of Education, National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, Regional Educational Laboratory Southwest. <https://eric.ed.gov/?id=ED580928>

From the ERIC abstract: “Aware of the challenges set before the Houston Independent school District by rapid growth in the numbers of English learner students, and a critical shortage of teachers with bilingual certification for more than a decade, members of Regional Educational Laboratory Southwest’s English Learners Research Alliance sought information that districts can use when recruiting teachers and assigning them to schools and classrooms that serve large numbers of English learner students. To respond to this need, this study examined the relationships between teacher certification and growth in

math and reading achievement and English proficiency among English learner students using data from the Houston Independent School District and the Texas Education Agency. The study assessed whether a teacher’s certification type—bilingual or English as a second language—and certification route—additional exam (adding a certification area to an existing classroom teaching certificate by completing an exam), alternative (receiving certification through a nontraditional route that allows one to teach while completing the requirements), postbaccalaureate (completing a university program offered to people with a bachelor’s degree or higher), or traditional (obtaining a bachelor’s degree in education from an accredited university)—were correlated with growth in math achievement, reading achievement, and English proficiency (as measured by the most recent Texas state standardized exams) among English learner students whose home language is Spanish. Key findings from the main analysis are detailed and analyzed. Stakeholders may find the results of the study useful for understanding the teacher factors related to English learner student achievement, assigning teachers to English learner student classrooms at the school level, recruiting teachers at the school or district level, and developing standards for teachers of English learner students at the state level.”

Salgado, R., Mundy, M.-A., Kupczynski, L., & Challoo, L. (2018). Effects of teacher efficacy, certification route, content hours, experiences and class size on student achievement. *Journal of Instructional Pedagogies*, 21(1), 1–18. <https://eric.ed.gov/?id=EJ1194250>

From the ERIC abstract: “The purpose of this study was to determine the effects of teacher efficacy, the type of certification route taken by individuals, the number of content hours taken in the sciences, field-based experience and class size on middle school student achievement as measured by the 8th grade STAAR in a region located in South Texas. This data provides knowledge into the effect different teacher training methods on secondary school science teacher efficacy in Texas and how that impacts student achievement. Additionally, the results of this study determined if traditional and alternative certification programs are equally effective in properly preparing science teachers for the classroom.”

Shuls, J. V., & Trivitt, J. R. (2015). Teacher effectiveness: An analysis of licensure screens. *Educational Policy*, 29(4), 645–675. <https://eric.ed.gov/?id=EJ1061547>

From the ERIC abstract: “Historically, the government has sought to improve the quality of the teacher workforce by requiring certification. Teachers are among the most licensed public personnel employees in the United States. Traditionally, an education degree with a student teaching experience and passage of licensure exams were necessary for licensure. In the 1980s, alternative paths to certification developed. In this article, we evaluated the impact of licensure screens and licensure routes on student achievement. Our findings from an analysis of Arkansas data suggest that there is little difference in terms of quality between traditionally and alternatively certified teachers. However, licensure exams do have some predictive power.”

Zhang, G., & Zeller, N. (2016). A longitudinal investigation of the relationship between teacher preparation and teacher retention. *Teacher Education Quarterly*, 43(2), 73–92.
<https://eric.ed.gov/?id=EJ1100322>

From the ERIC abstract: “Few issues in education threaten the nation as seriously as the present and growing shortage of teachers. Teacher attrition is high among teachers across the nation and is one of the most serious causes of teacher shortage (Ingersoll, 2004). As policy makers rush to address this problem, research is needed to examine the retention effects of policy decisions regarding various elements affecting teachers’ decisions to remain in or leave the profession. In recent years, there has been growing popularity of alternative teacher certification, which is largely due to the serious teacher shortage across the country (Cochran-Smith et al., 2011). In 2004, 43 states, plus the District of Columbia, reported having some type of alternative route for certifying teachers, whereas only 8 states said they had alternative routes in 1983 when the National Center for Education Information began collecting such data. In states like California, New Jersey, and Texas, which have been pursuing alternative routes since the mid-1980s, 20% or more of new teachers enter the profession through alternative routes. Alternative route certification programs (ARC) have been specifically designed to recruit, prepare, and license talented individuals who already have at least a bachelor’s degree. Candidates must pass a rigorous screening process. ARC programs are field based and include course work or equivalent experiences while teaching. Candidates of the program work closely with their mentors in preparation to meet the high performance standards required for completion of the program (Office of Innovation and Improvement, 2004). In the report of the Education Commission of the States, the commission raised the important question of whether there are alternative route programs that graduate high percentages of effective new teachers with average or higher than average rates of teacher retention (Allen, 2003). The report concluded that retention rates for alternative routes can be comparable to those of traditionally prepared teachers over the short term, but with regard to long-term retention, the research on this issue has to be regarded as inconclusive. This study aims to look at long-term retention effects of alternative route teacher preparation programs and traditional teacher preparation programs.”

Organizations to Consult

Center on Great Teachers and Leaders (GTL Center) – <https://gtlcenter.org/>

From the website: “The Center on Great Teachers and Leaders is a federally funded national content center based at American Institutes for Research (AIR). The center is part of the Comprehensive Center Network and cooperatively operated as a partnership between AIR, Public Impact, and the Council of Chief State School Officers (CCSSO).

The Center on Great Teachers and Leaders’ (GTL Center) mission is to support states and districts in their efforts to grow, respect, and retain great teachers and leaders for ALL students, especially those from disadvantaged backgrounds.

We work with states and districts to identify and implement innovative, evidence-based programs, practices, and interventions that improve both educator and student outcomes. Our team works directly with regional centers, state education agencies, and school districts to develop customized strategies that speak directly to local needs and contexts.”

REL Southwest note: A related Policy Snapshot that provides an overview of the latest research, practices, and policy trends on providing professionals from diverse fields with routes to become qualified teachers can be accessed at <https://gtlcenter.org/products-resources/alternative-routes-teaching-what-do-we-know-about-effective-policies>.

What Works Clearinghouse – <https://ies.ed.gov/ncee/wwc/>

From the website: “The What Works Clearinghouse (WWC) reviews the existing research on different *programs, products, practices, and policies* in education. *Our goal* is to provide educators with the information they need to make evidence-based decisions. We focus on the results from *high-quality research* to answer the question ‘What works in education?’”

Methods

Keywords and Search Strings

The following keywords and search strings were used to search the reference databases and other sources:

- [(“alternative certification”) OR (“emergency certification”) AND (“student outcomes”) OR (“teacher outcomes”)]
- [(effects of alternative certification programs) OR (effects of emergency teaching certification)]

Databases and Resources

We searched [ERIC](#) for relevant, peer-reviewed research references. ERIC is a free online library of more than 1.7 million citations of education research sponsored by the Institute of Education Sciences (IES). Additionally, we searched the [What Works Clearinghouse](#).

Reference Search and Selection Criteria

When we were searching and reviewing resources, we considered the following criteria:

- *Date of the publication:* References and resources published from 2004 to present, were included in the search and review.
- *Search priorities of reference sources:* Search priority is given to study reports, briefs, and other documents that are published and/or reviewed by IES and other federal or federally funded organizations, academic databases, including ERIC, EBSCO databases, JSTOR database, PsychInfo, PsychArticle, and Google Scholar.

- *Methodology*: The following methodological priorities/considerations were given in the review and selection of the references: (a) study types—randomized control trials, quasi-experiments, correlational studies, descriptive data analyses, literature reviews, mixed methods analyses, and so forth; (b) target population, samples (representativeness of the target population, sample size, volunteered or randomly selected, and so forth), study duration, and so forth; and (c) limitations, generalizability of the findings and conclusions, and so forth.

This memorandum is one in a series of quick-turnaround responses to specific questions posed by stakeholders in the Southwest Region (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas), which is served by the Regional Educational Laboratory (REL) Southwest at AIR. This memorandum was prepared by REL Southwest under a contract with the U.S. Department of Education’s Institute of Education Sciences (IES), Contract ED-IES-91990018C0002, administered by AIR. Its content does not necessarily reflect the views or policies of IES or the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.